

REMARKS

Claims 1-26 remain pending. Claims 21, 22, and 25 stand withdrawn from consideration following the election of Group I, claims 1-20, 23, 24, and 26, for prosecution on the merits.

Claims 1-19, 23, and 24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or in alternative, under 35 U.S.C. § 103(a) as obvious over EP 838,501 ("EP '501"). Claims 1-19, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '501 in view of Brydson, *Plastic Materials* at page 590. Each of these rejections is respectfully traversed.

EP '501 discloses a modified polyester composition that is said to have improved impact resistance. The modifier includes an ethylene acrylate co-polymer or an ethylene alkyl methacrylate co-polymer, and a ter-polymer selected from ethylene/alkyl acrylate/glycidyl methacrylate; ethylene/alkyl acrylate/glycidyl acrylate; ethylene/alkyl methacrylate/glycidyl acrylate; and ethylene/alkyl methacrylate/glycidyl methacrylate (page 2, lines 39-44). The compositions are said to be useful in automobile panels, automobile parts, industrial plumbing, and construction parts (page 6, lines 4-5). The composition is extruded and pelletized, and parts are formed by injection molding the pelletized extrudate (page 6, lines 33-34).

The Final Office Action points out that EP '501 describes heat deflection temperatures as high as 225°C, which is inconsistent with the November 18, 2002 Patel declaration, which reported heat distortion for the injected molded compositions at temperatures as low as 250°F (121°C). Upon further study of EP '501, Applicants agree that the heat deflection results reported in EP '501 are, in fact, inconsistent with the heat distortion data reported in the Patel declaration. However, the fact remains that the experiments reported in the Patel declaration were done according to the direction given in EP '501. Patel declares that "compositions were

prepared essentially as set forth in the last two entries of Table 2 (page 8) of EP '501.” (Patel Dec. ¶ 3).

Applicant believes the discrepancy between the heat deflection results reported in EP '501 and the heat distortion data reported in the Patel declaration might be due to the type of reinforcing agent that was actually used in the tests reported in EP '501. The extent of the description of the reinforcing agent used in Example 1 of EP '501 is “15% fiberglass.” This reference to “fiberglass” would be understood by persons skilled in the art as meaning untreated (or pure) fiberglass. The fiberglass used in the tests reported in the Patel declaration was recommended by and obtained from Owens Corning, the world’s largest fiberglass manufacturer.

To the extent that a particular glass reinforcing agent (or something else for that matter) is needed to obtain the heat deflection results reported in EP '501, the reference simply does not provide sufficient detail to reproduce those results. The record instead demonstrates that compositions which were prepared as described in EP '501, Table 2, last two entries, do not have a degree of thermally induced crystallinity of at least about 15%, as claimed in independent claims 1, 20, and 26. Moreover, these compositions exhibited shrinkage (did not maintain dimensional stability) at 212°F in the absence of reinforcing fillers (Patel Dec. ¶9). In addition, these compositions exhibited heat distortion (did not maintain dimensional stability) at temperatures of 250-400°F, even with reinforcing fillers (Patel Dec. ¶10). Accordingly, the present record demonstrates that EP '501 neither discloses nor suggests the composition of independent claims 1, 20, or 26.

Brydson is cited as describing the use of nucleating agents in injection molded PET. This (1975) publication states that injection molded PET “is transparent and amorphous and of little value” because it undergoes distortion, shrinkage and clouding when heated above 80°C.

Brydson discloses that nucleating agents have been used to develop semi-finished products such as rod and pipe by a continuous casting process. Such products are said to exhibit high hardness, creep resistance, and rigidity, but suffer from the disadvantage of sensitivity to hot water and alkaline solutions (sentence bridging pages 590-591).

Applicants respectfully submit that no motivation exists to combine EP '501 and Brydson as proposed in the Final Office Action. In any event, no evidence is cited that even if the references were combined, the resulting composition would have a level of thermal crystallinity of at least 15%, as claimed in claims 1, 20, and 26. In addition, no evidence is cited that such compositions would possess the dimensional stability-at-temperature properties as specified in these claims.

Applicants respectfully disagree with the Final Office Action's characterization of this amount as a "low level of crystallinity." Even if a nucleating agent were used in the EP '501 compositions, as the Final Office Action proposes, as a level of thermal crystallinity of at least 15% would not necessarily result. Indeed, the fiberglass added to the compositions tested in the Patel declaration functions as a nucleating agent, yet the resulting injection molded materials were essentially amorphous. In the absence of efforts tailored toward inducing thermal crystallinity (which the prior art does not suggest), a level of thermal crystallinity of 15% would not necessarily result, even if a nucleating agent were used. Therefore, the combination of EP '501 and Brydson fails to set forth a *prima facie* case of obviousness.

The dependent claims, 2-19 and 21-25, are allowable for at least the same reasons that the independent claims from which they depend are allowable. Reconsideration and allowance of the §§102 and 103 rejections over EP '501 and Brydson are respectfully requested.

Claims 1-20, 23, 24 and 26 stand rejected under 35 U.S.C. § 103(a) as being obvious over JP 1,247,454 ("JP '454") in view of Brydson. This rejection is respectfully traversed.

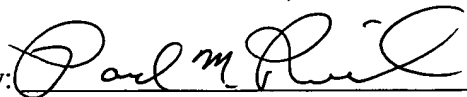
JP '454 is cited as describing modified compositions of polybutylene terephthalate (PBT). Independent claims 1, 20, or 26 specify a bulk polymer selected from PET, PEN, PETG, PCT, PCTA, PTT, and mixtures thereof. JP '454 fails to describe a composition containing any of the claimed bulk polymers and, at least for this reason, fails to describe or suggest the claimed thermoplastic composition.

Brydson is cited as describing nucleating agents. Brydson fails to describe or suggest the claimed compositions and, in any event, fails to remedy the deficiencies of JP '454 as discussed above. Moreover, as discussed above, even if nucleating agents were used, levels of thermal crystallinity of 15% would not necessarily result. Neither JP '454 nor Brydson, taken alone or in combination, discloses or suggests the invention of independent claims 1, 20, and 26. The dependent claims, 2-19 and 21-25, are allowable for at least the same reasons that the independent claims from which they depend are allowable. Reconsideration and withdrawal of the §§ 102 and 103 rejections over JP '454 and Brydson are respectfully requested.

The Examiner is invited to telephone the undersigned at the number listed below if she believes doing so would be helpful to resolve any outstanding matters.

Respectfully submitted,

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